

with vehicle (left) or LPS, i.p. (right)) for visualization 1.5 hours post-dosing.

Figure 27. Thermography of HIV patient suffering from lipodystrophy vs. normal subject. A distinctive thermal profile, particularly of the face, where fat wasting is occurring, and the back of the neck, is visualized by IR thermography.

5 of the face, where fat wasting is occurring, and the back of the neck, is visualized by IR thermography.

Figure 28. Interscapular brown adipose tissue (IBAT) thermogenesis in ob/ob mice 1 hour after treatment with the α_1 -adrenoceptor agonist BRL37344 detected by IR thermography. Ten week old male ob/ob mice (Jackson Labs, Bar Harbor, ME) were housed 5 animals/cage at 72° F and 50% relative humidity with a 12 h light and dark cycle. They were fed chow diet (NIH R&M/Auto 6F-Ovals 5K67, PMI Feeds® Inc., Richmond, Indiana) and water ad libitum. Mice were dosed at 0.0, 0.01, 0.1, 0.3, or 1 mg/kg BRL37344 in water vehicle (0.25 mL i.g.; n = 20 per dose). All animals were anesthetized with isoflurane and shaved to expose the area of interest prior to IR scanning. Half of the mice in each dose group (n = 10) had the skin covering the IBAT surgically removed ("peelback") and replaced with Bioclusive adhesive (Johnson&Johnson). Anesthetized mice were placed into a manifold with nose-ports for continual delivery of isoflurane. In order to maintain body core temperature during scanning, they were placed onto a tightly regulated heating table (37°C±0.05). The heating table was housed in an isothermal, non-reflective scanning chamber (24°C±0.05; 50% relative humidity). Upon closure of the chamber door, heat emissions from the IBAT area were acquired using a high resolution InSb IR scanning detector (AGEMA Thermovision 900, FLIR Systems, Bellerika, MA)